

REMARKS

INTRODUCTION

No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-3, 6-10, 13-16, 19, and 20 are pending and under consideration.

Reconsideration is respectfully requested.

ENTRY OF RESPONSE UNDER 37 C.F.R. §1.116

Applicants request entry of this Rule 116 Response and Request for Reconsideration because no new features or new issues are being raised. In particular, no amendments have been made to the claims under consideration

The Manual of Patent Examining Procedures sets forth in §714.12 that "[a]ny amendment that would place the case either in condition for allowance or in better form for appeal may be entered." (Underlining added for emphasis) Moreover, §714.13 sets forth that "[t]he Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

CHANGES TO THE SPECIFICATION

Changes have been made to the specification only to correct typographical errors and/or omissions and place it in preferred and better U.S. form for issuance. No new matter has been added.

REJECTION UNDER 35 U.S.C. §103

In the Office Action at pages 2-4, numbered item 3, claims 1-3, 6-10, 13-16, 19, and 20 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,231,677 to Mita et al. in view of U.S. Patent No. 5,329,137 to Okubo. The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

In a non-limiting example, the present application teaches an apparatus which generates a clear image from an input image generated by reading in print contents. The generated image includes printing dots and moire patterns. A contour adder adds contours to a contour image by scanning the contour image and determining whether the density of contour pixels in a particular region is equal to or greater than a density threshold value. The apparatus also calculates an average value of contour levels of contour pixels in the particular region, and changes the contour level of pixels in the particular region to the average value if the density of contour pixels in the region is equal to or greater than the threshold value in the contour level of the pixel in the particular region is smaller than the average value.

As an advantage, an image can be produced from printed matter (in which the printed matter includes dotted print contents), in which the generated image includes regions having many printing dots and moire patterns, and in which the regions are smoothed with continuous gradation. Further, the original image (the input image) is maintained including information of contour portions which do not include printing dots and moire patterns. As a result, an image having a more natural appearance is obtained (see Specification at page 12, lines 19-26).

Independent claim 1 recites "a determination unit which scans said contour image with a predetermined window, and determines whether a density of contour pixels in said predetermined window is equal to or greater than a threshold value concerning the density." Independent claim 1 further recites "a calculator which calculates an average value of contour levels of contour pixels in said predetermined window," and "a change unit which changes a contour level of a target pixel in said predetermined window to said average value if the density of the contour pixels in said predetermined window is equal to or greater than said threshold value concerning the density and the contour level of the target pixel in said predetermined window is smaller than the average value. Independent claims 8 and 14 recite similar features.

In the Office Action at page 3, the Examiner relies on Mita et al. and states that, traditionally, "an edge detector is performed using a low pass filter which calculates an average value of contour levels of contour pixels in the predetermined window and changes the contour level of a target pixel in the window to the average value if the density of the contour pixels in the window is equal to or greater than the average value, or threshold value, and the contour level of the target pixel in the window is smaller than the average value." The Applicants, however, disagree with the Examiner's position and note that the Examiner has provided no support for this statement.

While there may be an edge detector using a low pass filter, Applicants respectfully submit that the low pass filter does not normally calculate the average value of contour levels of contour pixels in said predetermined window. Further, the low pass filter does not normally change the contour level of a target pixel to the average value if the condition is satisfied. Applicants respectfully submit that such a low pass filter is not conventional or traditional in Mita, et al., or Okubo, or any other reference. Accordingly, Applicants respectfully submit that Mita, et al. and Okubo, taken alone or in combination, provide no teaching or suggestion for calculating an average value of contour levels of contour pixels in said predetermined window; and changing the contour level of a target pixel in said predetermined window to said average value if the density of the contour pixels in said predetermined window is equal to or greater than said threshold value concerning the density and the contour level of target pixel in said predetermined window is smaller than said average value. Thus, Applicants respectfully submit that claims 1-3, 6-10, 13-16, 19, and 20 patentably distinguish over the prior art and are in condition for allowance.

Further, on page 3 of the Office Action, the Examiner states that "an explicit definition of the density of contour pixels recited in the claims" is absent and refers to the Specification at page 8, last paragraph. The Examiner is urged to review the first paragraph of page 9 of the Specification, which defines the density of contour pixels as "C/S."

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

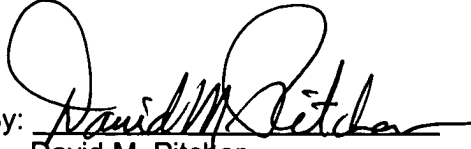
If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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